

Circular Rail Fixture Indexing System ▶ Fixture Indexing System

Code	Type	Material			Surface Treatment
		Frame	Motor Cover	Pulley Holder	Frame
KSD02	Circular rail fixture indexing system	Aluminum			Anodize

Product Introduction

- The ring indexing system is driven by a servo motor, and the ring indexing system can be controlled by inputting a control signal, which can meet various forms of transmission movement;
- The fixture is installed on the system slider. Connecting through the floating pin and the timing belt, the floating pin connection ensures the smooth transportation of the slider on the straight track and corrects the internal deviation of the slider after the slider enters a bend in real time.
- The system uses an independent positioning module for secondary positioning. The system can realize simultaneous transfer and positioning of multiple accompany fixtures, which is a smooth and high-speed transfer of workpieces between stations of automation equipment.

Product Features

- The product has compact structure, beautiful appearance, stable operation and no noise;
- This circular indexing fixture conveyor line have 25 series and 44 series. Each series is divided into two models according to the diameter of the ring rail, which can fully meet the various sizes and work requirements of customers.
- The track is made of high-quality imported bearing steel and processed by a CNC rail grinder. The working surface is hardened and has very good wear resistance.
- Non-standard design and manufacturing can be carried out according to the product size and equipment layout provided by the customer.

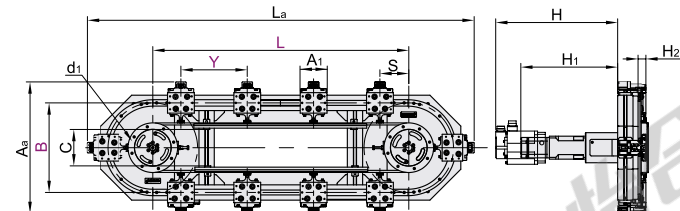
Applications

- It is mostly used for small and medium-sized assembling and testing automation equipment to realize the high-speed transmission of products between stations;
- It is often used together with a pure cam grabbing system to achieve high-speed product transmission and high-speed grabbing.

Notes

- This product does not include a motor, which needs to be purchased separately.
- The tooling fixture's product load and speed must not exceed the design requirements of our company's official website.
- This product is strictly prohibited from stamping, press-fitting and unbalanced loading, otherwise the accuracy and service life will be affected.

Q(Round): A positioning fixture indexing conveying system of each series



Slider Installation Size

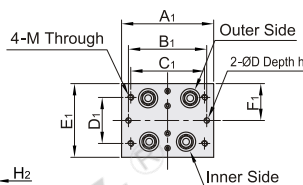
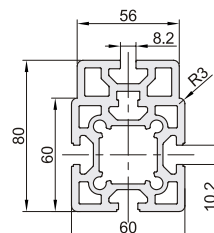
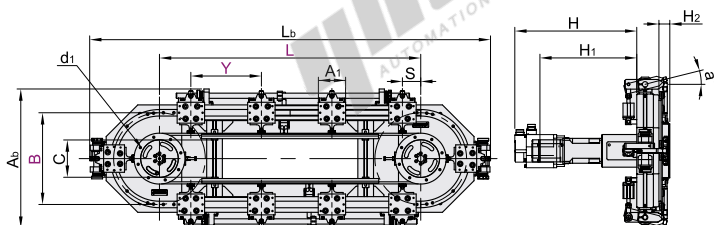


Diagram of the moving direction of the slider

Slider installation Size of each series									
No.	A ₁	B ₁	C ₁	E ₁	F ₁	D ₁	D	h	M
B255	100	85±0.01	80	80	40±0.01	50	6 ^{+0.02} ₀	5	M6
B300	100	85±0.01	80	80	40±0.01	50	6 ^{+0.02} ₀	5	M6
B351	105	90±0.01	85	80	40±0.01	50	6 ^{+0.02} ₀	5	M6
B468	145	125±0.01	120	116	58±0.01	75	8 ^{+0.02} ₀	5	M8
B612	150	130±0.01	125	116	58±0.01	75	8 ^{+0.02} ₀	5	M6

Q(Round): B positioning fixture indexing conveying system of each series

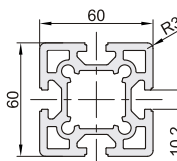
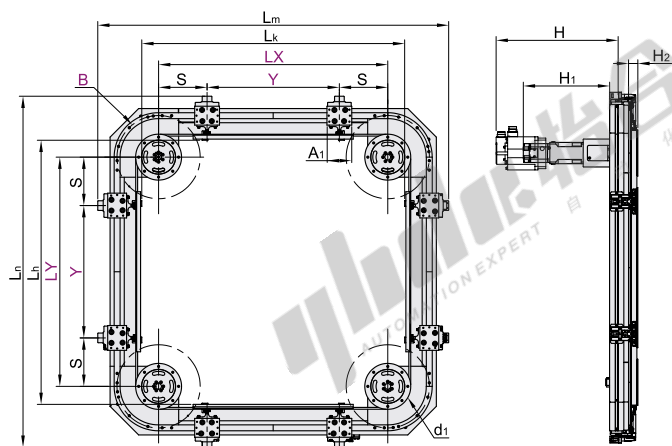
Corresponding profile for fixture indexing conveying system



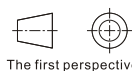
High Precision GB/T6892-2015 6080 Customize Profile
AHC21-4010-M6 specification nut can be used

W(Rectangle): A positioning fixture indexing conveying system of each series

Corresponding profile for fixture indexing conveying system

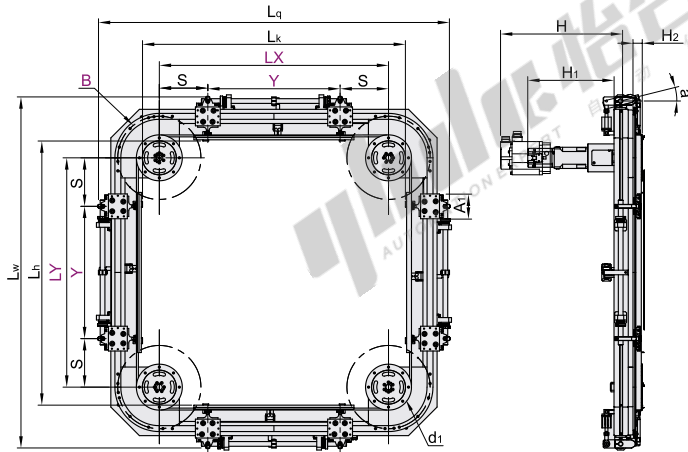


High Precision GB/T6892-2015 6060 Profile
AHC21-4010-M6 specification nut can be used

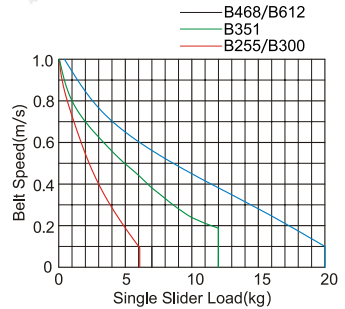


The first perspective

W(Rectangle):
B positioning fixture indexing conveying system of each series



Transmission capacity of Circular track horizontal installation (reference value)



- ① B255&B300&B351 static load capacity is 15kg; and the velocity 0m/s;
- ② B468&B612 static load capacity is 30kg; and the velocity 0m/s;
- ③ The above load-speed curve diagram shows the horizontal installation of the guide rail in lubrication state, the gravity is at the center of the slide block, and the working environment without partial load. Please contact us if there is any partial load condition;
- ④ If the number of sliders increases, the load-bearing capacity of the rail system will vary with the number of sliders. Note: When the ring rail is installed vertically, the corresponding load needs to be halved.

Correspondence table of circular fixture indexing system

No.	Aa	La	B	Ab	Lb	C (Inner Width)	L	d1 (Timing Pulley Perimeter)	S (When the straight line segment and the circle segment need positioning again)	Y (When the straight line segment and the circle segment need positioning again)	H1	H	H2 (Installation height from the top surface of the slider to the bottom surface of the guide rail)	a (Positioning swing angle)
B255	420	L+416	255	440	L+436	47	(Total QTY of stations Station pitch=300)2	300						
B300	465	L+465	300	485	L+485	91	(Total QTY of stations Station pitch=440)2	440	≥30	≥120			30.5	
B351	516	L+514	351	536	L+534	142	(Total QTY of stations Station pitch=600)2	600		≥140				
B468	669	L+665	468	689	L+685	225	(Total QTY of stations Station pitch=860)2	860	≥40	≥180	≤400	≤500		
B612	813	L+808	612	833	L+828	371	(Total QTY of stations Station pitch=1320)2	1320		≥260			38.5	
										≥380				14°

Correspondence table of rectangular fixture indexing system

No.	Lm	Ln	B	Lq	Lw	Lk (Inner Width)	Lh (Inner Width)	LX	LY	d1 (Timing Pulley Perimeter)	S (When the straight line segment and the circle segment need positioning again)	Y (When the straight line segment and the circle segment need positioning again)	H1	H	H2 (Installation height from the top surface of the slider to the bottom surface of the guide rail)	a (Positioning swing angle)
B255	LX+416	LY+416	255	LX+436	LY+436	LX+60	LY+60	(Single Side station QTY=1 Station pitch=62)	(Single Side station QTY=1 Station pitch=62)	300						
B300	LX+465	LY+465	300	LX+485	LY+485	LX+92	LY+92	(Single Side station QTY=1 Station pitch=62)	(Single Side station QTY=1 Station pitch=62)	440	≥30	≥120			30.5	
B351	LX+514	LY+514	351	LX+534	LY+534	LX+144	LY+144	(Single Side station QTY=1 Station pitch=62)	(Single Side station QTY=1 Station pitch=62)	600		≥140				
B468	LX+665	LY+665	468	LX+685	LY+685	LX+226	LY+226	(Single Side station QTY=1 Station pitch=62)	(Single Side station QTY=1 Station pitch=62)	860	≥40	≥180	≤400	≤500		
B612	LX+808	LY+808	612	LX+828	LY+828	LX+372	LY+372	(Single Side station QTY=1 Station pitch=62)	(Single Side station QTY=1 Station pitch=62)	1320		≥260			38.5	
												≥380				14°

Part Number	Repead stations	B Circular Track Diameter (mm)	Circular Track Type	L Guild Rail Length	Y Adjacent Stations Center Distance	Circular Track Installation Type	Positioning Type	Circular Track Configuration	Servo Brand	Servo Power (W)	Reducer Ratio	Motor Input Voltage (V)	Output Signal	No positioning tolerance in X-direction movement (mm)	YZ axis horizontal height repeat positioning accuracy (mm)	The highest repositioning accuracy in the X-axis moving direction (mm)
KSD02	2-30	255 300 351 468 612	Q (Round)	300-6000	120-1600 (Min Unit 20)	R (Horizontal) L (Vertical)	A (Single cylinder control, straight top mode) B (Cylinder single or multiple Control, joystick mode)	B: Standard J: Economic B: Standard	S (Panasonic) M (Mitsubishi) T (Delta) A (Yaskawa) K (Inovance) X (Siemens) Q (Others)	750 1500 1500	40	220 380 380	N (NPN) P (PNP)	±2	B Standard: ±0.1 J Economic: ±0.2	±0.05

Part Number	Repead stations	B Circular Track Diameter (mm)	Circular Track Type	LX Length LY Length	Y Adjacent Stations Center Distance	Circular Track Installation Type	Positioning Type	Circular Track Configuration	Servo Brand	Servo Power (W)	Reducer Ratio	Motor Input Voltage (V)	Output Signal	No positioning tolerance in X-direction movement (mm)	YZ axis horizontal height repeat positioning accuracy (mm)	The highest repositioning accuracy in the X-axis moving direction (mm)
KSD02	2-30	255 300 351 468 612	w (Rectangle)	300-6000 300-6000	120-1600 (Min Unit 20)	R (Horizontal) L (Vertical)	A (Single cylinder control, straight top mode) B (Cylinder single or multiple Control, joystick mode)	B: Standard J: Economic B: Standard	S (Panasonic) M (Mitsubishi) T (Delta) A (Yaskawa) K (Inovance) X (Siemens) Q (Others)	750 1500 1500	40	220 380 380	N (NPN) P (PNP)	±2	B Standard: ±0.1 J Economic: ±0.2	±0.05

- ① J: Economic (Economical circular track, cylinder brand is Airtac).
- ② B: Standard (Precision circular track, cylinder brand is SMC).

Q(Round)

Part Number	Repead stations	B Circular Track Diameter	Circular Track Type	L Guild Rail Length	Y Adjacent Stations Center Distance	Circular Track Installation Type	Positioning Type	Circular Track Configuration	Servo Brand	Servo Power	Reducer Ratio	Motor Input Voltage (V)	Output Signal
KSD02	2-30	255-300-351	Q (Round)	300-6000	120-1600 (Min Unit 20)	R (Horizontal) L (Vertical)	A (Single cylinder control, straight top mode) B (Cylinder single or multiple Control, joystick mode)	B: Standard J: Economic	S (Panasonic) M (Mitsubishi)	750-1500	40	220-380	N (NPN) P (PNP)

KSD02 - 10 - 6 - B300 - Q - L1880 - Y420 - R - A - B - S - 750 - 40 - 220 - N

W(Rectangle)

Part Number	Repead stations	B Circular Track Diameter	Circular Track Type	LX Length LY Length	Y Adjacent Stations Center Distance	Circular Track Installation Type	Positioning Type	Circular Track Configuration	Servo Brand	Servo Power	Reducer Ratio	Motor Input Voltage (V)	Output Signal
KSD02	2-30	255-300-351	W (Rectangle)	300-6000 300-6000	120-1600 (Min Unit 20)	R (Horizontal) L (Vertical)	A (Single cylinder control, straight top mode) B (Cylinder single or multiple Control, joystick mode)	B: Standard J: Economic	S (Panasonic) M (Mitsubishi)	750-1500	40	220-380	N (NPN) P (PNP)

KSD02 - 10 - 6 - B300 - W - LX1880 - LY340 - Y420 - R - A - B - S - 750 - 40 - 220 - N



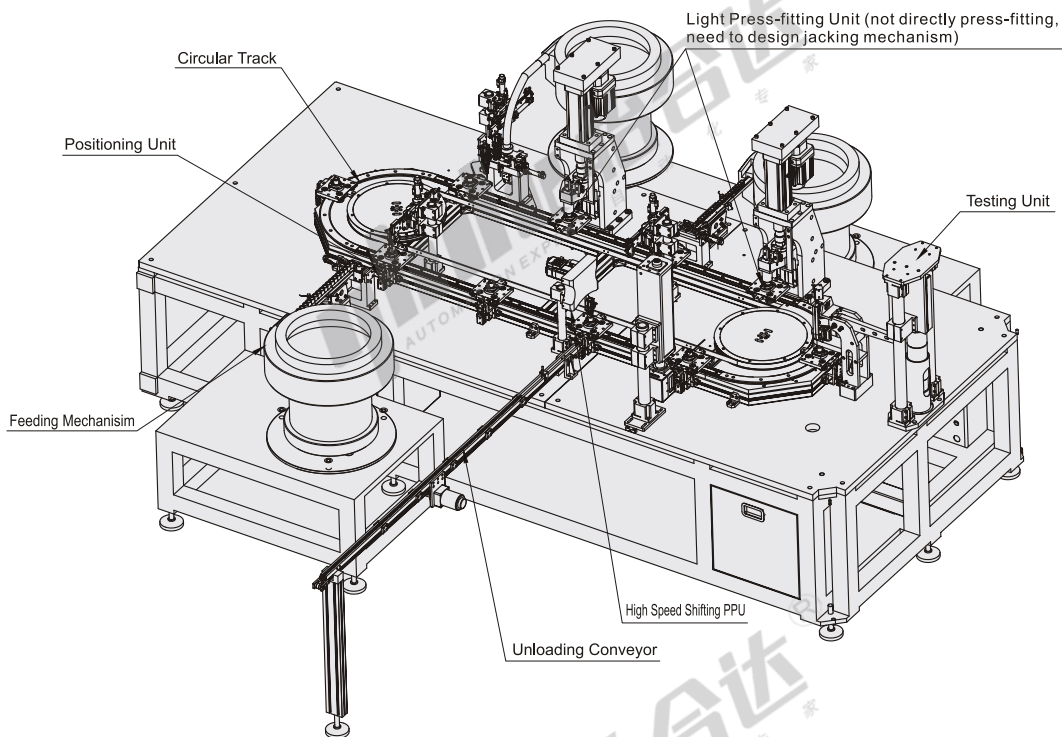
① Model Selection Instructions:

- ① **B255** is suitable for medium-speed of general load, the max load of a single carriage reach 6kg, and the speed not exceed 0.5m/s, which apply to the equipment circular indexing device with space requirements in the width direction; Recommend load and speed 3kg, 0.5m/s;
- ② **B300** is suitable for medium-speed of general load, the max load of a single carriage reach 6kg, and the speed not exceed 0.5m/s, which apply to the equipment circular indexing device with space requirements in the width direction; Recommend load and speed 3kg, 0.5m/s; ;
- ③ **B351** is suitable for medium-speed of general load, the max load of a single carriage reach 12kg, and the speed not exceed 0.5m/s. The B351 system has stronger carrying capacity and compact structure, which is also suitable for circular indexing requirements in a small space. Generally, the recommended load and speed are: 5kg, 0.5m/s;
- ④ **B468** is suitable for medium and high speed with general load. The max load capacity of a single slide block is 20kg. B468 is suitable for occasions with a relatively wide width and heavy load. Generally, it is recommended to use a load of 10kg and 0.5m/s;
- ⑤ **B612** is suitable for medium and high-speed general loads. The load-bearing capacity of the guide rail is same as B468, but its slider is larger than B468. The maxdynamic load of its single slider is 20kg and the speed below 0.1m/s, which is also suitable for Wider requirements and heavier loads occasions. It is recommended to use a load of 10kg and 0.5m/s.
- ⑥ When there is lots sliders, the total load exceeds 80KG, which required fast linear speed and the load exist eccentric it is recommended to use a 1500W high-power motor (for details, please contact our technicians for confirmation);
- ⑦ The Y value of the station spacing must be an integral multiple of 20;
- ⑧ The noise of the fixture indexing series is about 60~85D (vary according to the operating speed and the surrounding application places);
- ⑨ The circular fixture track indexing system is suitable for product transportation, grabbing, and tooling assembly.



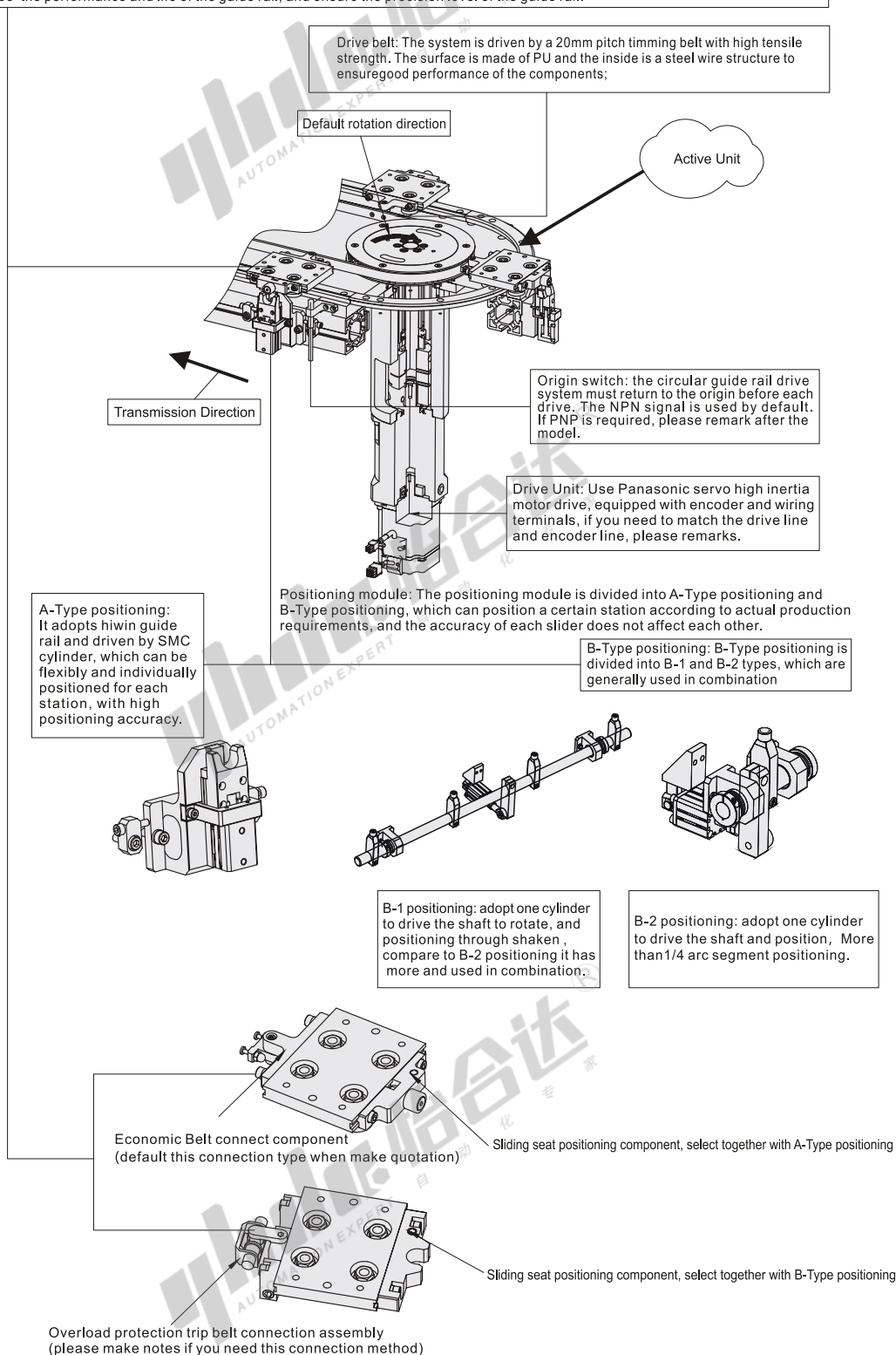
Example

- Servo motor drive, synchronous transmission between guide rail and belt, realize circular indexing;
- The number of workstations can be customized according to customer needs, and the speed is stable and adjustable during transportation without noise;
- Compact structure and beautiful appearance;
- Non-standard design and manufacturing is available to meet different customers requirements.



Introduction

Track: KSD02 is built using PARO guide rails. PARO rail is a steel rail with good bearing capacity and high precision, made of high-quality imported bearing steel. The modular design can easily connect the linear guide rail and the arc guide rail; the mating surface of the sliding seat and the guide rail is a V-shaped working surface, which has very good wear resistance after special hardening treatment, which can guarantee the performance and life of the guide rail, and ensure the precision level of the guide rail.

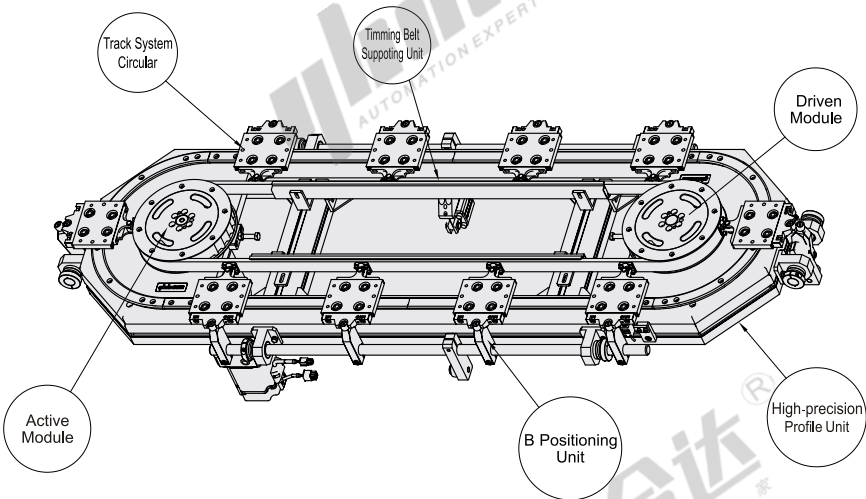


Circular Rail Fixture Indexing System ▶

Fixture Indexing System

Example Display

Example Model	KSD02 — 10 — 10 — B300 — Q — L880 — Y220 — R — B — J — S — 750 — 40 — 220 — N
Application	Marking, welding, testing, packaging, dispensing, etc.
Recomend Speed	0.5m/s
X-axis Positioning Accuracy	±0.05
Recomend Load	1-8kg (Single Slide Seat)
Features	Good versatility, high space utilization, efficient and stable operation, no noise



Example Model	KSD02 — 8 — 8 — B300 — W — LX1200 — LY340 — Y440 — R — A — J — S — 1500 — 40 — 220 — N
Application	Marking, welding, testing, packaging, dispensing, etc.
Recomend Speed	0.5m/s
X-axis Positioning Accuracy	±0.05
Recomend Load	1-15kg (Single Slide Seat)
Features	Good versatility, high space utilization, efficient and stable operation, no noise

